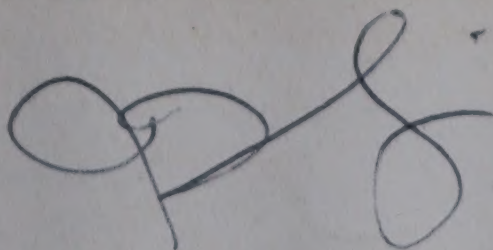


Some Aspects of Anthropological Contributions to the Study of Fertility

by Christine Oppong



I. Introduction

This last chapter is concerned with some of the advantages which might accrue to economic research and policy-making based upon it in the field of fertility behaviour, if more insights both conceptual and methodological were drawn from other disciplinary approaches. The particular approaches used here are those of social anthropology or comparative sociology. These are especially appropriate since economists' interest in fertility behaviour extend beyond one culture or nation state and thus require a thoroughly cross-cultural perspective¹. At the same time, since data bases are admittedly inadequate and funds for collecting relevant new data limited, introduction to a range of flexible and relatively inexpensive techniques of data collection, which may be used to explore issues of special interest or policy-related concern may help to extend the current range of questions examined by more conventional approaches pursued by economists.

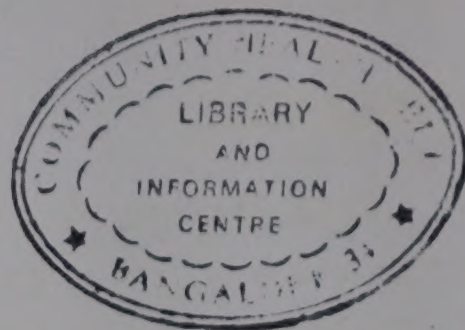
Significantly at the present time it is frequently argued that there is a need for reconciliation among different disciplinary approaches (e.g. Burch, 1980). Associated activities which attest to the prevalence of such interests include the emphasis given to interdisciplinary debate² and attempts to develop conceptual models helping to explain differential fertility which incorporate social and cultural factors, as well as economic.³ Economists often claim a high degree of cross-cultural applicability for their models, but a number of critics have argued that current economic models have not sufficiently taken into account the social, cultural and specifically familial contexts of fertility.⁴

Two major points have been made earlier in this volume about the subject matter and methods of economists' research on fertility. First, economic research is concerned with the extent to which fertility behaviour is ultimately a rational or consistent response to perceived resource constraints and opportunity costs - attempting to provide insights into the extent to which fertility levels and changes are related to alterations in availability and allocation of scarce resources in money, material goods and time between potentially

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conflicting goals. Second there is little tradition among economists of collecting and processing new field data for such research purposes. This gap restricts the number, range and type of variables considered for building models and thus the array of policy options to which such models might be relevant.

Consequently the goal of this chapter is to include in this series of mainly economic essays a discussion from a social anthropological perspective, which calls attention to an alternative conceptual framework for examining potential connections between fertility related expectations and behaviour and perceived resource scarcity at the micro level of the individual and domestic group. This is achieved through indicating how differences and changes in expectations (norms, values and perceptions) and behaviours associated with various roles (such as those of parent, spouse, child, kin, etc., may be related to both resources on the one hand and fertility on the other, and form critical intervening links in chains of change, which more complex models are currently attempting to incorporate relating changing phenomena both inside and outside the domestic domain (e.g. Bagozzi and Van Loo, 1978a and b, 1980). At the same time it briefly describes, for readers trained in other disciplines, some of the empirical techniques used by anthropologists in the field; noting their peculiar advantages for the study of norms, values and beliefs and activities associated with resources and procreation and its regulation. These include modes of data collection such as observation of natural life events and situations; purposeful selection of typical or deviant or contrasting cases or small analytical samples of events, people, domestic groups or communities for detailed study; the emphasis upon the value of qualitative as well as quantitative data and information about relationships or how things hang together in social systems. As Simmons has remarked, all of these research tools and modes of data collection can be important for the work of economists, just as the kinds of hypotheses derived from an anthropological or behavioural framework may be tested with the conventional tools of econometrics.

With these goals in view we first look at some anthropological perspectives on fertility and then examine several conceptual problems currently confronted by economists and demographers before going on to examine the relevant concepts used by social anthropologists and family sociologists. The variables and their definition and the relationships, that are of primary concern to economic and demographic

studies of fertility include such concepts as household, family, costs of parenting, sex roles and marriage or conjugal role relationships. Some indication is given of how formulation of indices to facilitate measurement and comparison of aspects of such phenomena is pertinent to examination of correlates of variations and changes in fertility related expectations and behaviour. These aspects include such dimensions as the openness or closure of the conjugal family unit, its functional boundedness in various areas of functioning (i.e. the extent to which conjugal, parental and sibling roles are played vis-a-vis people outside the conjugal family unit) and the jointness or segregation of the conjugal role relationship (the extent to which spouses flexibly share activities and responsibilities of various kinds). Next we discuss briefly some of the empirical methods which are the foundation of social anthropological field work. In the final section we refer to some Ghanaian empirical studies, which illustrate the potential value of these concepts and methods for economic-demographic work, focusing on fertility and its regulation and the research and policy implications of these.

A. Anthropological approaches

Anthropologists feel that the main demographic patterns of any society rest on a combination of social, cultural and psychological factors and that these can only be uncovered through the intensive methods of the field anthropologist (MacFarlane, 1978, p.8). Numerous ethnographic accounts have documented, albeit often in descriptive fashion, the sorts of relationships observed between the resource system of a society, modes of production, values and demographic processes, in particular procreation within the context of marriage and domestic organisation. Recent summaries of the trends observed in anthropological approaches to population studies in general have indicated a wide range of interest, with two basic themes permeating many of these studies; one being the way demographic events influence social structure and ideology and vice versa (see Reining, 1981). Such studies have been carried out using different levels of analysis including individuals, domestic groups, communities, cultures, states and globally.

A persistent theme of such studies is the existence of mechanisms whereby a balance of some kind is maintained between available, finite material resources, in land, food, etc., and population size (either at the domestic, community or ethnic level) (e.g. Douglas, 1966). In contrast with scholars of other disciplines, anthropologists have consistently supported the contention that societies have "always" controlled their own population growth and some empirical work in this field shows the relevance of this hypothesis to the population dynamics of small groups (Reining, 1981, p.40).

Discussions about factors constraining fertility include whether it is deliberate or incidental; whether it is the result of social or biological mechanisms and the extent to which individuals or sets of people are making conscious decisions, rather than following the dictates of tradition or custom. The sorts of methods of fertility regulation which anthropologists have typically documented include pre-modern methods such as abortion, delayed marriage age, enforced celibacy, residential separation of spouses and post partum sexual taboos and breastfeeding. As Reining (ibid., p.89) has emphasised anthropologists expect to find controls, both on the basis of previous empirical evidence and on the basis of their theoretical approach to the functioning of a society. The difficult task is to show how these controls work or how they change, in particular cultural contexts or how they are related to the particular resource base considered critical and to changes taking place in the latter.

It has been argued by anthropologists that a new "cultural inventory" is a necessary pre-condition to modern contraceptive adoption (Epstein, 1977, pp.226 and 235); that people need to have alternative choices and possibilities for calculation, as well as the opportunity and power to shape their own lives, and those of their children, and that only when their economic hopes and aspirations are raised in a context of scarce means do they start worrying about the potential future quality of life of their children (e.g. Das Gupta, 1977). Thus anthropologists are seen to share with economists an interest in relating resources of several kinds and expectations about them to differential and changing fertility. And in this endeavour power, control and the opportunity to choose are realised to be critical.

We shall turn next to some particular conceptual issues and methodological problems, currently the focus of scholarly concern and about which recent comparative anthropological work has something pertinent to contribute, in view of its cross-cultural perspective and multiple modes of data collection and analysis.

B. Conceptual concerns: Family phenomena

Certain concepts pertaining to role relationships and resources in the domestic domain recur frequently in the various writings of economists about fertility. They usually concentrate on couples who are married and include in their calculations the relative resources of each spouse in terms of occupation, income, age and education. Thus the marriage bond and conjugal resources are major foci. They view fertility as occurring in "households" inhabited by "families" and consider parenthood and parental inputs into childbearing and rearing. Increasingly the use of the resource time as well as money is calculated and considered.

For the most part the implicit models of marriage, family and household organisation and parenthood utilised, consciously or unconsciously, are derived from Western European and North American models. The latter assume a functionally individuated, nuclear family, of wife, husband and children, living in the same home with a segregated conjugal role relationship, in which the husband is the major income-earner working outside the home, with little responsibility for tasks within the home and the wife has major responsibility for domestic work. She may or may not generate income outside the home, depending upon a variety of preferences and constraints.

Assumptions built into this model and invalid in many cultural contexts include the ideas that conjugal solidarity in economic and other terms is stronger than sibling solidarity or that between any other combination of kin; that children are raised by their biological parents; that only mother's time is used for child-care; that the conjugal family is a functionally separate unit as regards production, consumption, socialisation, and control over people and resources (e.g. Schultz, 1974). At the same time there is the underlying assumption that the areas of productive work and income generation on the one hand, and home and procreation and socialisation on the other, are spatially and functionally separate and that one is mainly the preserve of men and the other largely the concern of women.

However, frustration in attempts to utilise such a model of the domestic domain in diverse studies; the barrage of criticism from scholars more accustomed to cross-cultural comparative data collection and analysis and exposure to the growing bodies of empirical evidence refuting such assumptions have led to a general mood of dissatisfaction regarding this model. Thus a growing sense of unease is apparent in the writings of economists and demographers as they write about "household" behaviour and differential fertility in various cultures. Signs of such unease include worry about what should be the unit of analysis in empirical work, in view of the increasing dissatisfaction with the classical economic concept of the unitary, functionally individuated, co-resident "household". Such concern is evident, for example in the qualms of Kuznets (1978) as he writes about the size and age structure of family households, particularly with respect to the boundedness or "closure" of domestic units. It is clear in the misgivings of Galbraith (1973, p.36) as he discusses consumption and the concept of the household and the sexual division of tasks and resources. It is obvious in the writings of Leibenstein (1977), who remarks regarding units of study, that in traditional economic theory pertaining to the household, the way in which individuals are related to economic decision-making units is not considered; with the consequence that traditional economic theory is unable to examine intra-household differences in preferences and values and how these may relate to economic decisions. However, as he argues, once the basic decision-making unit considered is the individual, then a much more realistic and detailed analysis is possible, because the behaviour and expectations of individuals can be considered, their roles and the ways they relate to others and to groups. Indeed, it is only when individuals are considered that an attempt can be made to study the functioning of highly complex domestic groups (or firms).

Similarly, there is an expressed realisation of the need to improve the sophistication of conceptual frameworks relating to family systems and kin ties so that their power for theory building or data collection at the macro or micro level can be improved. Thus Freedman (1979, p.65) notes the significance of the failure of classical demographic theory to deal empirically with changes in the family which might be among the links between macro-variables and fertility. Again, cultural variability in family systems is increasingly recognised, even though the extent of differences may not be fully perceived. Thus, Birdsall et al. (1979, p.217) while recognising that "families"

are organised differently in different societies" still think that "the nuclear family, with modest and variable extensions and adaptation, remains the predominant type".

Related to these concerns is the growing recognition of the ambiguity and measurement difficulties encountered in attempts to index and compare central and critical concepts such as "costs of parenthood", "women's status", etc., increasingly used in economic-demographic analyses. These are problems which have been referred to in Part I of this volume and with which recent empirical analyses have been completed to grapple (e.g. Mauldin, Berelson and Sykes, 1979) albeit unsuccessfully (Dixon, 1979). It is thus not surprising to find that numerous attempts have been made by economists and demographers, especially those involved in empirical work in diverse cultural contexts, to increase the complexity of the bounded, co-resident, conjugal family and household model in their studies. Such attempts have involved the dichotomisation of residence patterns, often contrasting "nuclear" and "extended"; a more careful examination of the directions of the flow of resources between kin and parents and children (e.g. Caldwell, 1977, etc., "wealth flows"); and realisation of the possibility of delegation of child-care to people other than the biological parents. Recently Ben-Porath (1980) has begun to attempt a more sophisticated analysis of familial transactions.

All such attempts are steps towards making household models more flexible and more appropriate to diverse life situations so that they might become more capable of dealing empirically and theoretically with very diverse domestic situations and relationships. And these are intimately involved in the complex processes of begetting, bearing and rearing children, the differential outcomes of which ultimately constitute diverse fertility levels and affect population growth.

We now turn to a set of variables and a conceptual framework which permit the required degrees of flexibility, complexity and detail needed for cross-cultural work.

II. Roles, Relationships and Resources

Scholars from a variety of disciplines have over the past few decades proposed the relevance to fertility of a number of changing phenomena in the domestic domain pertaining to resource production, control, management, consumption and availability or perceptions about these, which, if they are to be adequately tested, require

far more sophisticated models of roles, relationships and resources than those offered hitherto by economists. They include a range of propositions referring to role substitution, role activity delegation or sharing changing status attached to roles (in terms of associated deference or prestige and control of resources and power over people), including increases in equality and changes in norms, values and perceptions about resources in time and money and how they should be spent - on whom and by whom. Before examining some of these hypotheses a closer look at concepts relating to roles and statuses is required, since these and their associated attributes, including conflict, strain, stress, etc., form the potential building blocks and links in such new hypotheses.

Role theory offers a flexible and widely used set of concepts, which has been developed over several decades, providing framework and a set of units for data collection and analysis by diverse methods of varying complexity and based on contrasting assumptions regarding the nature of social change (Biddle, 1979). The concepts allow the researcher to focus upon individuals, while at the same time placing them within their diverse economic, social and cultural contexts, including consideration of prescribed norms, tastes, preferences or values and perceptions and institutional frameworks of reciprocal rights and obligations and sets of relationships with significant others. Role theory also facilitates measurement and comparisons, both of behaviour and expectations including role strain (perceived inadequacy of resources), conflict and pressure towards change and innovation. Furthermore, role theory enables us to examine systematically issues of allocation of resources, choice, decision-making and power, essential to the documentation of dynamic systems.

Types of data which can be used with the framework include such a diverse array of materials as time budget series, interviews, observations, surveys, focused biographies, census materials, media and literature searches. Foci of study can include behaviours, resources and expectations. The concept of role focuses attention upon activities and expectations characteristic or observed among particular categories of people and relevant to certain contexts. Thus behavioural or expected roles can be studied. Role expectations include expressions of what ought to be (prescriptions), what is preferred (values), or what is seen to exist (perceptions). Conformity involves the idea of similarity and overlap between expectations and activities and

the idea that the former moulds the latter. On the other hand, creativity, innovation or deviance are associated with changes in behaviour from customarily acceptable role models. Such is the case of innovators who decide to use modern contraceptive methods to control their fertility and cause it to be below traditionally valued levels. It is recognised that in rapidly changing, mobile and complex systems there are likely to be conflicting pressures upon individuals in terms of new role expectations, as well as changing opportunities or new resources constraints and areas of stress and strain and in these phenomena are valuable pointers to possible directions of social change.

The framework is capable of providing needed links between observations at the micro and macro levels, between individuals, institutions and societal and cultural contexts.

Simple forms of role concepts are used in many studies but they offer tremendous potential for increasingly complex and sophisticated analysis, as well as for subtle qualitative treatment (Nye, 1976). Recently a framework for comparative role analyses in relation to demographic change has been outlined, within the context of a global research programme on women's roles and demographic issues, which combines the above variables, providing a system of classification to facilitate such endeavours cross-culturally (Oppong, 1980). This framework includes consideration of the roles of parent, worker outside the home, worker inside the home, spouse, kin, community member and self actualising individual. It combines several kinds of data including information on resources decision-making and control as well as expectations indicating how multiple measures of sexual inequalities in the division of tasks and resources may be devised.

The cursory reference above to some current problems in the economic and demographic literature pertaining to the explanation of household behaviour in general and fertility in particular, indicates the potential range of utility of the role framework and its current relevance. It could be used to help solve several dilemmas.

- (i) It can help to overcome the problem of the simultaneous examination of expectations, resources and behavioural phenomena (e.g. Wainerman, 1981).

- (ii) It can facilitate a shift beyond the use of unitary co-residential household models towards a focus upon individuals as parents, spouses, workers outside the home, etc., but within their nexus of resources, relationships, etc., thus permitting a more complex conceptualisation of the domestic group (e.g. Goody, 1972).
- (iii) It can make possible a more complex analysis of resource flows and transactions between individuals and within and between households and the contracts which may exist between them, which are increasingly realised as critical by economists and demographers (e.g. Ben-Porath, 1980).
- (iv) It could make feasible the kinds of studies of inertia and rational decision-making advocated in some quarters, especially through the mechanism of role strain (e.g. Leibenstein, 1980).
- (v) It can provide meaningful measures of individuation or solidarity or individualism, called for by some hypotheses (e.g. MacFarlane, 1978a and 1978b).
- (vi) It could make available a more realistic and systematic assessment of relative costs and opportunity costs of child-care and who is providing the required resources in different cultural contexts (Oppong, 1981a and forthcoming b and c).
- (vii) It could incorporate the use of time-budget studies more meaningfully into appropriate socio-economic frameworks (e.g. Mueller, 1982).
- (viii) Being culture-free it could make possible the kind of detailed cross-cultural comparisons required to assess and contrast rates and directions of change and areas of difference in the relative status and power of the sexes (Oppong, 1980 and forthcoming c).

With this sort of role framework in mind we will next turn to a brief consideration of several major hypotheses linking resources, parental roles and fertility. As we shall see, underlying each is the assumption that increasing costs, burdens, conflicts, stresses and strains associated with the maternal or paternal roles, either actual or perceived, leads to attempts to reduce these costs in one way or another, including lowering of fertility values and increased regulation of fertility, at least for those individuals who have the power, means and opportunities to do so.

C. Some hypotheses linking parental roles, resources and fertility

As we noted above many economic models built to explain fertility have assumed that parents maintain and care for their own children and that the continuing flow of time and money inputs is from mothers and fathers to their offspring. Contrary empirical evidence from many contexts, however, has led to the widespread testing of a number of hypotheses, which envisage other types of transactions associated with parental roles. Some of these hypotheses are referred to here.

Parental status

A current theme attracting many researchers is that relating parental status, in terms of command over the labour and products of children, with high fertility values (e.g. Cain, 1977; Mueller, 1976 and 1981; Turchi and Bryant, 1979). Time use studies have underlined the importance of inputs of children's time to the farms and business enterprises of parents and kin, arguing that as this work becomes illegal or otherwise unavailable, as in contexts of universal primary education and wage employment for adults only, the economic value of children declines, the costs rise and fertility also declines (e.g. Bulatao, 1980). Thus, Caldwell's (1977, etc.) wealth flows argument has proposed that as children become the object of work and money costs, rather than producing resources for their parents' benefit, support for high fertility is likely to decline.

Furthermore, studies in some cultures focusing on the effects of education have indicated quantitative and qualitative differences in the content of parent-filial relationships with schooling; differences in time and knowledge devoted to the parental role and the quality of inter-actions, and the rising of parental aspirations for children's education, training and future occupations, which indicate a relative rise in the status of children vis-a-vis parents and point towards a growing emphasis on quality rather than quantity of children (e.g. Caldwell, 1979; Hill and Stafford, 1980; Levine, 1980).

Time use studies, values of children psychological studies and observations of flows of wealth of different kinds and effects of education support the hypothesis regarding the dwindling of parental status vis-a-vis children (that is, increased equality) and fertility. There is, however, a lack of detailed studies illustrating the precise mechanisms whereby such changes occur at the level of activities and expectations, and identifying the individuals in selected populations who have already either suffered parental status loss or raised their aspirations for their children and adapted their behaviour accordingly⁵.

Individualism

A range of hypotheses are current which focus upon the effects of increasing individualism: the diminution of parental role delegation of activities and responsibilities concerned with parenting, a pattern which has been

widespread in many cultures (e.g. Goody, 1978). Such hypotheses link parents' increased personal responsibility with a rising perception of costs, whether in time or money, and a desire to limit fertility. Such personalisation of parental responsibilities as Leibenstein has pointed out, is a critical policy-related phenomenon, since "free riders" are less likely to care about restricting their procreative activities, than are those who are totally involved in assumption of related parental expenditures. Two main types of sharing and delegation have been identified and studied, the one involving the spouse and thus the conjugal division of labour and resources (aspects of what have been termed jointness and segregation of the conjugal role relationship) and the second involving kin, servants, household members and others⁶. Diminished opportunities for delegation have been related to kin dispersal, schooling of children who are potential nurses and changing norms about the propriety of such sharing or delegation. Historical evidence has been provided of the economic and affective changes over time associated with such a shift towards individualism⁷.

Individualisation of parent-child ties is correlated with the dwindling strength of sibling group bonds. Causal mechanisms include social and spatial mobility of individuals and dispersal of kin, through education and individual opportunities for employment and income generation. Thus, while the classical household model assumed individualism in terms of the parental role, historical and cross-cultural data show the diversity and complexity and importance of changes in this sphere and the need for measurement and comparison. Again, more detailed studies of changing behaviour patterns and expectations in this regard are needed, which can be used to test the hypothesis of their association with differential fertility.

The sexual division of labour

Regarding parental inputs in time and money, the classical household model assumes the male is the main breadwinner, providing material resources to support offspring and that the female is the nurturant mother and domestic worker providing time. However, increasing bodies of data collected from around the world attest to the variety in the sexual and more specifically conjugal division of labour, both inside and outside the home, and the pervasiveness of change.

A subject which has been the focus of considerable research attention from economists and others has been the effects upon fertility related behaviour and aspiration of women's paid work

outside the home⁸. The underlying assumption here is one of role conflict; that the expectations and activities of the two roles are incompatible, that women cannot work outside the home and care for children and babies within it and that the more women who work outside the home the lower will be their fertility. However, realisation that many women of the world are engaged in production and income-generating activities, in contexts where these can be combined with child-care, has led to an increase in time-use studies and observation of activities to discover the extent of simultaneity of parental and occupational role activities⁹.

A subject which has been given less attention, especially in the developing world is division of domestic labour between spouses, in particular time inputs into child-care. This is regrettable since several studies have shown that the more flexible and egalitarian the conjugal division of tasks the lower are fertility expectations¹⁰. Significantly such flexibility of allocation of role activities between spouses and the associated egalitarian decision-making processes have been linked to the similarity of resources in education and income. Such evidence provides important scope for the extension of research into sex roles and conjugal exchanges in relation to parental costs and fertility (Scanzoni, 1980, etc.; Bagozzi and Van Loo, 1980).

The individual self

Another theme in studies of industrial and post-industrial nations is the attempt to link the absolute decline in fertility aspirations with the individual's growing focus upon self. The latter involves the desire to spend as much time as possible upon leisure, rest and recreation or the desire to spend material resources upon personal status-enhancing attributes (expensive material goods) or costly enjoyed activities; hence the lack of desire for offspring who would detract from available resources in money and time. Recent writers on this topic have noted that a profound cultural change has taken place in Europe associated with a marked demographic change - the decline in fertility. Responsible parenthood is no longer a universally valued goal, parental sacrifice is no longer a prescribed norm (Hawthorn 1980; Aries, 1981; Steiner, 1977).

In the developing world one or two studies indicate a shift in norms, tastes and perceptions of a similar kind among deviant urban minorities. Individuals are depicted who reject local norms and values regarding marriage and parenthood and prefer to spend their time and money on individual material security, self gratification and advancement (e.g. Dinan, in press).

Such hypotheses linking changing roles and fertility cannot be tested using traditional economic household models and the stock lists of variables. They put forward propositions regarding linkages between activities, expectations and resources (material and intangible, i.e. statuses) attached to roles and differential and changing fertility aspirations and achievements, connecting changing parental role activities and expectations with changes in other roles people play. To test such hypotheses data is needed on time and money budgets, acquisition and control of resources, decision-making processes and changing norms, values and beliefs. Collection and analysis of such battery of data is facilitated by adoption of the flexible set of concepts available from role theory and a battery of qualitative and quantitative research methods, already familiar to anthropological field workers. It is to consideration of these methods that we shall now turn.

III. Anthropological Methods and Research Design

A. Field work

The importance of observing and documenting real life situations, of seeing and describing behaviour as well as taking account of role expectations - norms, values and beliefs, are basic to the social anthropological approach. Thus a hallmark of anthropological field studies is the necessity for a period of personal immersion in the real life context of the people studied, with the idea that such face to face personal experience is vital for finding out what the fundamental questions really are and consequently what are the variables and hypotheses which can be selected for more detailed and systematic study. This applies even though the field worker may approach the field with a clear conceptual framework to assist in the collection and classification of information or a theoretical model which already indicates the kinds of issues and connections selected for study. Other characteristic features of anthropological field work include its intensiveness and its smallness of scale,

especially single community studies entailing several months or years of residence and the use of genealogical materials to provide an important framework for the collection of much behavioural data on patterns of production, ownership, inheritance, ritual behaviour, residence patterns, socialisation, etc.

In field studies, it has been in the past common practice to take a holistic approach, that is, taking account of the total range of which can be observed, rather than defining one narrowly prescribed social and cultural phenomena/set of factors to be considered in isolation (which in the case of fertility has often been assumed to include parity on the one hand, and age, marital status, education, employment and income on the other). At the same time the field worker using an anthropological approach remains sensitive to the potential significance of unanticipated findings in the field, what have been called "anomalous strategic data". It is thus common practice to study the subsistence basis of resource allocation, control and consumption. An important consideration in the study of a particular culture and community is the differences between the materially more or less well off, which may entail inventories of material possessions and descriptions of contrasting life styles. In agricultural communities, the study of landholding and transactions in land is basic.

Social events both large and small in scale provide important subjects for study, including birth, naming ceremonies, puberty rituals, weddings, funerals and court cases and disputes. A series of such selected events may themselves provide the major subject of study, as for instance, a set of legal cases, a series of funerals or puberty rituals. Meanwhile, the study of important groups has been central focus of concern including domestic groups (households); descent groups (lineages and descending kindreds) and sibling groups; their formation, organisation and change over time.

B. Data collection techniques

Watching and listening are the basic field techniques, as is careful recording in note form of all such observations. In the past interviews with key informants have formed an important source of data. Ethnographers normally combine data from personal eye witness observations with information gained from informants' descriptions. Life history materials or focused biographies have

also been an important type of field data. These are often useful for examining values and perceptions, as well as being accounts of past activities and events. They may, of course, focus on particular issues such as fertility (e.g. Reining, et al., 1977; Oppong and Abu, forthcoming). And often interview guides are used rather than questionnaires, encouraging people to talk on selected topics but leaving their responses free flowing and open¹¹.

Surveys and census have been increasingly used as sources of information. There is however, a pervasive feeling that reliance on one structured interview is likely to produce inadequate and distorted information. Meanwhile, observation is limited to the range of the eyes and ears of the observer, who is thus constrained in the number of events and people that can be observed, hence the typical small size of the communities, neighbourhoods, and sets of domestic groups or individuals studied by ethnographers¹².

C. Data analysis: Qualitative and quantitative

Anthropologists, like other social scientists, use diverse methods in looking for meaningful patterns among the variables selected for study; including various kinds of quantitative analysis, such as tests of independence and measures of association and factor analysis, multiple regression, etc. What differentiates the anthropologist's approach from that of other social scientists using similar techniques, however, is that they generally also have plenty of contextual data as well; including descriptions of behaviour observed, language texts, focused interview materials, etc., which all may give support and weight to the statistical data. Thus, they avoid the problem of attaching too much to meaning the occurrence of chance, statistically significant differences, which may easily occur in large samples of data.

The argument is not whether to use quantitative or qualitative data but how most judiciously to mix and integrate them to develop useful and credible information. As Pelto and Pelto have noted, credibility of information about human behaviour cannot rest alone on either "purified numerical analysis" nor "rich verbal description that ignores underlying questions of quantity and intensity" (ibid.). The importance attached to numerical analysis and its sophistication in anthropological studies has varied in the past but is noted to be increasing. Interest in the study of change processes has no doubt

led to an increased interest in quantification. In cases in which the universe studied is small the total universe may be sampled. Sometimes a random representative or stratified sample is selected or a quota sample, when a goal is to study people who differ in some critical way such as age, social class, caste, etc. Another important kind of sample which may be used is the analytical sample, which is not necessarily randomly selected nor representative of any larger universe, but is chosen specifically for the exploration of selected variables and their potential linkages and correlations with other chosen factors.

D. Types of research design: Some examples

Anthropologists use several sorts of research design when planning their studies. These include studies of single cases such as one individual, one family, household, kin group or village community, such as Bleek's (1975) study of a single West African lineage; comparisons and contrasts of several case studies, as in a study of 12 married couples and their relationships and resources (Oppong, 1982); the cross-cultural (statistical) method, such as used in their study of patterns of post partum abstinence and breastfeeding in West Africa by Page and Lesthaeghe (1981) and the inter-regional comparison and intra-cultural analysis, such as the several cultures study of fertility in East Africa (Molnos, 1972).

IV. Ethnographic Evidence from Ghana

Now we turn to several sets of West African data which illustrate the potential usefulness of carrying out exploratory, small-scale research in depth, with analytical samples of purposively selected cases of several kinds; the aim being to increase understanding about systems of role relationships in the domestic domain, including resource acquisition, control and allocation, power and decision-making and reproduction. The context of these cases in Ghana, a country characterised by highly pro-natalist values in which observed completed marital fertility is estimated at 7.5 children per woman. There is, however, considerable contrast in fertility levels among different groups. The most marked difference is that between women in different kinds of employment. Female labour force participation is quite high with 64 per cent of women reported to be economically

active. The majority of the women workers are engaged in agriculture (55 per cent), followed by sales (26 per cent) and production and related workers (15 per cent). Only a few women workers are classified as employees (salary/wage earners). Less than 3 per cent are in the professional, technical, administrative and clerical workers occupational category.

Female employees have a total fertility rate of 3.6. These are mainly women with some formal education who work as secretaries, receptionists, typists, clerks, nurses and teachers in government departments and private organisations. Self-employed women and family workers have the highest total fertility rate (6.4 and 6.6, respectively). These are mainly farmers and traders working with their children and kin and several studies have shown how the latter rely on their own and fostered children to help them to run and develop their businesses and farms.

The cases which follow depict people from each of these two main contrasting employment and fertility regimes, farmers and employees. They document aspects of use of time, money and living space within the domestic domain; of the role activities and expectations of parents, spouses and offspring and kin, showing the contrasting relationships and exchanges occurring in different production contexts and how these appear to be related to changing attitudes and practices regarding parenthood and reproduction.

The first example focuses upon subsistence savannah farmers, among whom all members of the domestic group are mainly unpaid family workers subject to the authority of senior male kin. This material is relevant to arguments about intergenerational wealth flows and fertility; as an instance in which parents and kin perceive themselves and are observed to benefit from children's labour and thus maintain high fertility values and reject the advent of schools which will change children into costly consumers. The remaining examples are mainly of people for whom income generation or procurement of a livelihood occur outside the domestic domain; people for whom "work" and "home" are separate and whose own children do not assist them in productive and money gaining activities; rather they go to school, have high achievement

aspirations for educational qualifications and jobs and cost their parents increasing amounts of time and money; depending, as we shall see, on the extent to which the mother or father uses her or his own resources and upon their rising aspirations in this regard. Thus, the second case is that of educated, urban migrants, among whom the men are employed as senior civil servants, earning relatively high government salaries and the women are in various occupations, with diverse claims to autonomy and economic independence. This data addresses issues concerning the conjugal division of labour and resources (jointness) and power and the functional individuation (openness) of the nuclear family. These sets of variables, as was noted above, have been found relevant to fertility and also to modes of production and migration. An unexpected outcome of this study was the salience of tension, conflict and change inadvertently observed, as decision-making processes unfolded during the period of intense observations. The third case is an analysis of changing normative prescriptions consequent upon successive generations of education regarding familial roles on the one hand, and family size on the other. The data support the contention that changes in roles within the domestic domain are the intervening variables linking education, urbanisation, occupational change, etc., with fertility and family size values. The fourth case is a study of government employees, nurses and clerks, living in the capital, Accra, who include both migrants and locals. Social and spatial mobility associated with changing interactions with kin and spouses are shown to be relevant to perceptions about availability of money and time, the costs of parenting and family size values. The fifth and sixth cases are those of female and male teachers scattered in rural and urban areas around the country. Some are migrants; some are in their home towns. This study addresses issues of role strain, arising from the disintegration of traditional supports for high fertility

time and relates them to changing parental role behaviours and expectations, including family size and fertility regulation. The seventh case study, as yet incomplete, is mentioned because of its methodological interest. It consists of focused biographies of educated Ghanaian women from two ethnic groups, the Ga and Dagomba, half of whom are living outside their home areas. It focuses upon fertility through in-depth examination of the maternal role and the changing values, prescriptions, perceptions and behaviours attached to it. The establishment of role profiles for each woman is intended to demonstrate the extent to which the maternal role is salient and valued for these women, in contrast to their other six roles and to examine how it is changing in contexts of social and spatial mobility.

As we shall note, a variety of methods of data collection were used in these several studies, including participant observation, focused interviewing, collection of genealogies, censuses of domestic groups, surveys, postal questionnaires, focused biographies and analysis of archival materials. The cases studied included individuals, couples, domestic groups, kin groups and communities. The cases were selected in various ways including purposively - with the help of local experts; randomly from known populations and as total universes of given categories of subjects. Sample sizes of people studied varied from a dozen to a thousand. All the cases were relatively small in scale, and is one way or another present evidence of the logic and processes involved in reproductive behaviour for the people concerned. They simultaneously seek to throw more light on the potential links between fertility and resources of several kinds, including the time available to parents from younger and older members of domestic groups and others; the money available to parents and the demands made upon it and the changing tastes and values associated with education and mobility. Throughout, there is an assumption that female and male perspectives, values, resources and power in fertility-related decision-making need to be viewed dynamically in relation to each other; and at the same time,

that ethnic differences in behaviour and expectations need to be taken into account. The continuing focus is on the roles played by individuals in the domestic domain - their activities, norms, preferences and perceptions and status in terms of control of resources and power over people and social prestige, and how these change as altering modes of production and income generating opportunities affect kin roles and occupational roles through education, migration and new jobs.

A. Children: Allocation of benefits

In the early sixties, a small ethnographic study in the Muslimised traditional kingdom of the Dagomba in northern Ghana examined socialisation and education of children (Oppong, 1973). A variety of methods were used to collect the data for the study. These included participants observation, interviewing of key informants and others, collection of household censuses and genealogies and several small surveys of limited populations including school-children.

At the time of data collection, subsistence agriculture and animal husbandry and home-based crafts, such as leather work, weaving, blacksmithing, butchering and barbering were the main modes of gaining a livelihood. Schools were a new phenomenon and compulsion was required to recruit pupils. Adults complained that they needed the children's labour in the home and on the farm, where the young were observed to assist in carrying out the time-consuming tasks of watercarrying, fuel collecting, food processing, bird scaring and poultry and animal husbandry, including cow herding and caring for horses. So, few children, often only one or two from a sibling group, were allowed to go to school.

This is a culture in which numerous offspring are desired, barrenness abhorred and the only universal method of family planning used is post partum sexual abstinence¹³.

Wives return to stay with their parents and guardians after the birth of a child, especially that of the first or second. Ideally in a polygynous system husbands do not suffer conjugal deprivation and mothers return to their husbands when their child is walking and ready to be weaned. The way in which these practices provide an effective system of birth spacing has recently been indicated (Gaisie, 1980). Kin and in-laws are nearby to see that these prescribed norms are adhered to.

The domestic group living in a mud-walled compound of varying size and complexity usually contains one or more conjugal families with monogamous or polygynous husbands. In some cases adult brothers or father and sons live in the same household with their wives and all or some of their children. Women live with adult brothers or parents after childbirth, after divorce, widowhood or conjugal separation and in this situation command a senior household position.

The important kin group for control over resources including professional skills and knowledge is the "dang", the descending kindred composed of descendants of a common ancestor counted through male and female ties. Thus the children of brothers and sisters belong to a common "dang". Individuals belong to several such sets of kin. The strong bonds between brothers and sisters are strengthened even more in this system by fostering, the transfer of children, typically boys to mothers' brothers and girls to fathers' sisters, which occurs in a considerable minority of cases, up to one in four or more. Some children also stay with their grandparents. Such a pattern of fostering of children by non-parental kin has been documented among the neighbouring Gonja and in other West African communities, as well as in other parts of the world (Goody, 1978). Many reasons are given for the practice, including the advantages of training in crafts and specialist skills, such as divining, music and royal genealogies;

of spreading resources through the kin group; of binding relatives more closely together in a system of considerable spatial mobility and significantly of providing a critical source of child labour and assistance for people without young children in their homes to fetch and carry, etc.: help which, as we have noted, is crucial for the continuation of the traditional domestic and agricultural patterns of subsistence. Supporting this pattern of behaviour is the ideology that parents are not necessarily the best people to rear their own children. Ensuring its enforcement is the fact that parents do not have complete control of their children, who like them are subject to the overriding authority of elders of the kin group - their parents' senior siblings and their own parents and classificatory parents (i.e. uncles and aunts).

Thus the study described how in such a system children provide critical labour inputs to domestic groups and kin groups, the heads of which claim they cannot go to school or the survival of the group will be threatened. In this system fertility is only regulated by customary spacing practices sanctioned by kin and community to benefit the health of mothers and babies, leading to prolonged birth intervals. Meanwhile, the benefits accruing from children are spread among members of the kin group, in this case the descending kindred. Indeed, parents are sometimes virtually compelled, occasionally by supernatural sanctions, to send one or more children to a kinsman or woman. Thus parental and filial role substitution is of common occurrence.

These findings, like those of many other ethnographic descriptive studies of socialisation and the domestic domain, in cultures of the developing world demonstrated clearly, both what important labour inputs children can provide in a subsistence economy and how erroneous are assumptions that parents always rear their own children or that conjugal families are residentially or functionally bounded groups.

This is a society in which the traditionally sanctioned norms for parental and conjugal roles prescribe that parents and children and husbands and wives should live separately with kin for specific periods of their lives and that some children should spend most of their young lives with non-parental kin. These norms differ significantly in the several occupational and status groups within the society, according to the needs of particular professions and political posts and thus call attention to the necessity of documenting carefully in any particular cultural context, the amount of parental role delegation or substitution present in different subgroups; the extent to which the "costs" and "benefits" of childrearing and child labour are spread and to whom and in what circumstances.

Meanwhile, the traditional prescriptions and practices with regard to birth spacing have apparently kept fertility levels lower than those of nearby ethnic groups, who do not have much norms and practices.

A breakdown in these traditional practional may accordingly lead to higher fertility levels (Gaisie, 1981).

We turn next to samples of the socially and spatially mobile elements of the Ghanaian population and see how configurations of roles and statuses are changing with consequent alterations in fertility-related expectations and activities.

B. Conjugal "jointness" and nuclear family "closure":
Power tension and change

The next example dealing with urban conjugal role relationships is relevant to our present concerns for several reasons. First, it is concerned with modes of documenting and measuring crucial variables, the relative flexibility of the conjugal division of labour termed "Jointness" or "segregation" and the boundedness of the conjugal family in terms of socialisation, etc., termed "closure" or "openness". These have been related to family/^{size and fertility}regulation as we noted above (e.g. Liu, 1977). Thus it may serve to facilitate the study of differences and changes in important aspects of role relationships, including the kinds of role substitution or sharing of activities and resources between spouses and kin, which have been demonstrated correlates of differential fertility and which are in fact signs of the allocation of rewards and costs (e.g. Scanzoni and Szinovacz, 1980).

Second, since the study involved observation and open-ended repeated interviewing of wives and husbands in states of tension and conflict, it inevitably grew into a study of power and decision-making over time, thus demonstrating how the very dynamic change processes themselves might be documented; a topic which is currently of great interest to students of fertility (Hollerbach, 1980; Burch, 1980).

Third, it involved an exchange perspective, which has been utilised in other studies attempting to relate types of conjugal role relationships, both to the

occupational structure, educational opportunities and kin networks and within the conjugal family, power relations, the division of labour and fertility (see Scanzoni and Bagozzi and van Loo, referred to above).

How to measure differences and explain changes in conjugal family role and status systems has been a longstanding challenge to anthropologists, family sociologists and others, and is now beginning to be confronted by economists. These processes involve both the measurement of differences and changes within the domestic domain and the estimation of effects of externally triggered factors, such as changes in modes of production involving individual resource control or autonomy and changes in the relative status of one sex or the other or adults or children, through changes in chances for increasing skills, knowledge, wealth, prestige, etc., offered by education employment or entrepreneurial opportunities. Much has been made of the potential relevance of such processes and relevance of such processes and changes to fertility and these are obviously issues of critical interest to population scholars, including economists.

This problem of documentation and measurement of differences and changes was thus confronted in a field study of family relationships in Accra carried out among suburban Akan migrants in the late sixties (Oppong, 1982). The traditional patterns of domestic organisation and family relationships of one segment of the Akan had been studied and described over two decades earlier (Fortes, 1950, 1954). The Akan ethnic group is the most numerous in Ghana and constitutes over 40 per cent of the population. Traditionally, subsistence agriculturalists in the tropical rain forest and more recently engaged in cocoa cashcropping, their system of kinship and marriage is characterised by matrilineages, corporate kin groups recruited through uterine ties, which own and manage substantial properties in land and housing and by polygyny. Inheritance is customarily matrilineal,

property passing to siblings and children of female members of the sibling group. Traditionally many marriages have been duolocal; that is, each spouse continues to co-reside with matrikin, children staying partly with fathers and partly with matrikin. The costs of their maintenance have been similarly spread. For purposes of sex, procreation, socialisation and maintenance of children; for production, management and ownership of resources, the conjugal family is not a closed or functionally bounded group. Wives and husbands co-operate in agriculture but they own nothing together. Neither inherits the other's property and they seldom traditionally live alone together. Conjugal role relationships may thus characterised as segregated in each sphere, except for customary joint production of the wherewithal to maintain their common children. These traditional behaviour patterns and associated norms, values and perceptions persist to a considerable extent today.

The question asked in the study of Akan urban educated migrants was how the roles of parent, spouse, household member, kin, etc., are modified in a situation of migration and individual income-earning, when one or two or even three or more generations of education and social mobility have affected patterns of residence, modes of earning a livelihood, availability of resources, standards of living, opportunities for autonomy, aspirations and tastes. For education is correlated with individualism: with movement away from kin (Caldwell, 1969) and with individual employment and income-earning, rather than co-operation in enterprises with kin. And these factors have been hypothesised as being related to changing fertility levels as noted above.

Data to answer these questions were collected by several means from migrant Akan men who were senior government employees living and working in Accra and from their wives. Some information was collected through questionnaires, filled in largely by the respondents

themselves. This mainly constituted reports of household behaviour and exchanges with kin, children, wives and others. In addition a detailed panel of case studies was collected over a 10-month period of repeated observations and focused interviewing in 20 households. Eventually, 12 of these couples and domestic groups were subjected to detailed analysis and comparison.

In order to form indices of the jointness of the of the conjugal role relationship in several spheres scores of financial provision, financial management and chore participation were derived. To measure the degree to which the conjugal family was financially a closed group an index of financial closure was devised, which comprised information on education of children, remittances to kin and co-ownership of family property.

Analysis of the survey responses gave evidence of interesting correlations between generations of education and financial closure of the conjugal family. The latter in turn appeared to facilitate more syncratic decision-making by couples, which was also associated with more joint task performance (financial provision, management and chore performance, see *ibid.*, p. 143). Indeed, both case and survey data gave interesting indications of the dynamic and complex associations existing between relative closure and jointness of conjugal relationships in a number of areas and also of marital power and decision-making and the apparent stability and harmony of husband-wife relationships.

Among the families surveyed the use of child and adolescent labour from poorer homes was seen to prevent the time strain pressures and opportunity costs which might have led to increased fertility regulation. Meanwhile, aspirations for high status offspring in terms of education and level of maintenance meant that traditional high fertility ideals had already dropped towards an ideal family size of four children because of financial constraints.

The modes of measurement and data collection and the over-all framework for analysis used in this study were subsequently found useful in other settings, in which they were related directly to questions regarding fertility.

C. Norms: The chain of change

The study of prescribed norms for familial roles has been a popular pastime in family sociology in North America. But much less has been done in this regard in other parts of the world. As we noted above, interest has been raised by several studies showing links between the patterns of such norms and fertility desires and ideals. In the study discussed here a random sample of students at two universities provided the data and the issues of role delegation and substitutability and status were once more examined at the normative level, using a subset of nearly 400 male childless young men (Oppong, 1975b). The hypothesis linking conjugal role jointness and smaller family size values was examined. A score of jointness and segregation was seen to correlate with mean number of children advocated (Oppong, 1975a). Similarly, a correlation was found between approval of conjugal family openness ("extended family" norms) and large family size values and approval of closure (functionally individually nuclear family) and small family size values (Oppong, 1974a). The closure scale indicated degrees of approval expressed regarding the playing of the conjugal and parental roles across the boundaries of the nuclear family. The seven activity areas included childrearing, inheritance, decision-making, financial provision, sex and procreation, chore performance and co-residence.

At the same time social and spatial mobility, as indexed by generations of education, were found to be associated with increasing approval of jointness and closure in terms of intergenerational transmission of property within the conjugal family and its residential separation from kin, as well as a more egalitarian

relationship between spouses (Oppong, 1972). Significantly these norms were among those most closely associated with changing family size desires. Since no direct correlation was found between generations of education and family size values further evidence was provided of the critical intervening nature of changing family norms, links in a chain of changing role expectations (Oppong, 1977a).

D. Mobility, resource scarcity and the retreat from parenthood

In many cultural contexts the earliest signs of changes in attitudes and behaviour relating to fertility have been among the upper and middle classes, professionals, civil servants, clerks and teachers. Caldwell (1978) demonstrated that such change was already taking place in Ghanaian towns in the sixties. Large families were increasingly perceived as burdensome. It was thus decided to study a small sample of junior civil servants to explore changes, if any, occurring in their attitudes to fertility and its regulation. Two small independent samples of women and men were selected, specifically to explore variables correlated with differences in attitudes to family size and planning.

In this study self-administered questionnaires were used and this data was supplemented by focused interviewing. Several hypotheses were explored and it was discovered that the most mobile sectors of the two populations in both social and spatial terms wanted fewer children than they thought ideal (Oppong, 1974b). The most mobile did not know more about contraception nor was their greater readiness to seek promotion correlated with their smaller family desires. The critical link appeared to be economic constraints and insecurity. On the whole, migrants felt themselves to be in worse financial predicaments than the locals (cf Caldwell, 1969). Significantly, those who were most mobile in both social and spatial terms were the ones shouldering the greatest burdens of help to kin. At the same

time they received the least financial help from kin. It was thus concluded that their feelings of economic insecurity and strain in relation to their kin responsibilities were a critical factor affecting their own parental role expectations, and that a detailed analysis of flows of resources to and from kin should be studied further in relation to fertility desires and achievements.

Data from the married male subset of the sample also showed the relevance of exploring the effects of geographical and socio-economic mobility over two generations (Oppong, 1976a). The two most mobile groups tended to be most ready to move elsewhere to improve their situation and some of these had the biggest drain from kin on their resources. Simultaneous examination of mobility status and perceptions of financial status showed that locals with a good to fair assessment of their resources wanted the most children and in-migrants with illiterate parents and a poor perception of their financial status wanted the fewest (3.9) (ibid.). This analysis again called attention to the need for more detailed studies of the availability of resources in money and time - the relative benevolence of the immediate environment - including data on the exchanges between kin and the availability of parental role substitutes - all of which are likely to affect resources and expectations for childbearing and rearing.

E. Women teachers: The crumbling of High Fertility Supports

The Ghanaian studies mentioned so far have clearly demonstrated the relevance of studying changes in role expectations and activities in relation to fertility. They have emphasised the critical importance of the type of employment and the availability and allocation of domestic resources and the salience of role stress or perceptions of cost, as spurs to innovation and change. At the same time the importance of the relative status of family members was emphasised, their control over resources, power over others and part played in decision-making. Spatial and social mobility entailed by schooling and the search for suitable employment were confirmed as important factors triggering off changes

in resources and familial roles and relationships, which in turn affected family size aspirations and achievements. It was therefore resolved to collect a systematic set of data focusing on these several issues, looking at a sample of women and men, rural and urban, migrant and non-migrant and selected from among a group of potential innovators. Accordingly a national sample of primary school teachers was chosen and data was collected through postal questionnaires and focused interviewing with a small subsample. First we shall consider an analysis of role strain among the women then the men (Oppong, 1977b) and forth-coming c). The major factors precipitating change in this case again were education and employment as salary-earning government junior civil servants. Thus, many of the changes observed in domestic life were also responses to the pressures engendered by migration and the separation of work and home. For many were first generation employees coping with problems of job demands their mothers and fathers before them had not faced and at the same time enjoying positions of occupational prestige and individually earned and disposable incomes, which although considered low were their own. Thus, the major questions the study set out to ask were how parental, conjugal and kin roles changed to adapt to new needs and aspirations. To what extent were traditional domestic and familial expectations and behaviour patterns fulfilled and followed; to what extent was there innovation and change. Both survey data and discursive interviewing provided overwhelming evidence of stress for women and men; both time stress and money stress. Individuals found themselves unable to fulfil all their customary obligations or to achieve their aspirations for themselves and their dependents. There was observed to be a considerable gap between norms and behaviour patterns reported and observed.

Thus among the women, mainly mothers as well as employees, inadequacy of time constituted a permanent stress factor, as they tried to cope with the conflicting demands of their roles as workers outside the home and mothers. Expectations of customary forms of help from kin were not fulfilled,

nor were new expectations regarding the joint role the spouse should play in child-care and domestic tasks. Similarly, in the financial sphere gaps between norms and reality led to stress - demands of kin could not be fulfilled, husbands did not contribute enough; salaries were considered too low; so money issues were very salient and a substantial minority were in debt.

Such were their feelings of resources stress in a situation of continuing normative pressures for high fertility, that one in three admitted feeling they had too many children to care for. Sixteen per cent tried to solve their childrearing problems by sending one or more children to kin. Meanwhile, 68 per cent had children other than their own staying with them, many being responsible for their own sisters and sisters' children. At the same time, their aspirations for their own children's level of education was high and anxiety provoking in a situation of economic strain. Thus it was not surprising that two out of five mentioned issues related to parenthood when asked to relate problems they had encountered. Texts recorded from teachers documented the extent of their problems and their strategies for coping. Many had neither adequate kin support nor assurance of dependability from their husbands and they lived in a context lacking institutional supports, such as creches and child allowances. And yet the ideal of the full-time income-earner and mother of at least four and preferable six children remained. However, as the composition of the domestic group and exchanges between kin altered, women are observed to find this ideal image increasingly hard to realise.

Significantly, it was the wives with lower than average fertility who were more likely to complain of resource constraints. At the same time they felt a greater sense of personal responsibility for household expenses and chores. They more often stated that husbands and wife should share equally in the cost of raising children and less often than mothers with

high fertility did they think that their husbands should help them with housework. Meanwhile more women with relatively high fertility had higher than average levels of legal and financial support and security in marriage. These findings were seen as being in line with other work linking indices of greater levels of personal responsibility (costs), with respect to domestic duties and tasks and an increased demand for the individual's own resources and correspondingly less command over the resource of others, with smaller family size ideals or lower fertility.

F. Male teachers: Parental costs and fertility regulation

In the analysis of data from male teachers supportive evidence was once more provided for hypotheses linking social and spatial mobility consequent upon generations of education and salaried employment with changes in familial roles and fertility, on the levels of both expectations and behaviour (Oppong, forthcoming a). And once more increasing costs of parenting and parental role strain figured prominently as did the themes of conjugal familism, personal responsibility and sexual equality. (See figures 1 and 2). Thus, parental and grandparental education, which were themselves indices of social and spatial mobility in childhood, were associated at the level of norms and values, as well as behaviour with decreasing exchanges of time, goods, money, property and children between kin and the diminished sharing of responsibility for these by relatives. Meanwhile, conjugal sharing of domestic tasks increased with a greater blurring of the sexual division of labour in the home. On the behavioural level fertility control was correlated with individualisation of the paternal role and acceptance of related responsibilities; a more flexible and active participation in domestic tasks and conjugal decision-making and the dwindling of wealth flows between kin. On the level of norms and values approval of such increasing closure of the conjugal family and conjugal jointness and equity and individualised parental responsibility was associated with lower family size preferences.

All these changes, of course, essentially involved greater time and material inputs associated with the paternal and conjugal roles, thus entailing relatively greater personal costs. At the same time markedly higher aspirations for children's education, especially that of daughters, was associated with lower family size preferences and a high score on an index of child-care strain was correlated with fertility regulation.

Thus, once more hypotheses linking lower fertility desires and increased regulation with more individualism, growing equality of parents and children, wives and husbands and an increasingly flexible division of labour between spouses are supported. Significantly men who participate more in domestic work, spending more time and effort on tasks in the home, are also among those with lower family sizes, lower preferences and have contracepted more. Again, in terms of sex and role norms, disapproval of male dominance in financial matters and sex is associated with lower family size preferences, lower family size and contraceptive usage. These data thus one more emphasise the relevance of studying the division of domestic and parental activities and power between women and men as well as that outside the home.

G. Maternal values and aspirations

The last data set mentioned in that of 60 biographies of Ghanaian educated women. In these information on expectations and behaviour for seven roles was collected, focusing upon the maternal role and fertility. On the basis of these studies both detailed and simplified modes of categorising data have been designed which facilitate quantification and comparison (Oppong and Church, 1981). The latter consists of role profiles which indicate levels of role rewards (status-economic and social), role strain and salience. A goal of this analysis is to uncover the causes and consequences of changing role priorities and values affecting motherhood, which may assist in the process of understanding differential

and changing fertility, in particular the effects of perceived costs and opportunity costs. Once more, the sample comprises migrants and non-migrants so that potential effects of mobility may be examined (Oppong and Abu, forthcoming).

Indications already emerging from segments of this data are connections between perceptions of time strain, occupational/parental role conflict and smaller family size desires. Thus, for instance, among Ga migrants in Tamale, those who report no feeling of time strain desire 4.2 children; those who perceive a little time strain desire 4.2 children; those who perceive a little time strain want 4 and those who perceive want 3 and those who feel a lot of time strain want 2. Again, some of the findings support the argument that declining family size values are associated with changes in conjugal role satisfactions and that high ranking of individual gratification in terms of personal leisure and pleasure are associated with voluntary termination for pregnancies which might interfere with the life style (cf Dinan, in press).

V. Conclusion

It has been argued that current versions of economic demand theories of fertility still remain too heavily influenced by a western world view, regarding among other things, family relations, thus hampering their capacity to contribute further to an understanding of the causes of high fertility in the developing world. It has thus been argued that fertility theories and models built to understand and measure factors influencing fertility must be developed initially with particular social and cultural and familial contexts in mind, but ultimately sufficiently complex and cross-culturally appropriate to deal with any situation.

Economic theories of fertility need to take account of an array of diverse cultural practices which may have profound effects upon the production, control



and allocation of the scarce resources in money, material goods and time, with which the theories deal. These include contrasting marriage contracts - different in terms of the expected content of conjugal exchanges, the division of tasks, responsibilities, resources and power, the number and range of people affected and the set of people involved in the unions which may be monogamous, polygynous, polyandrous and their length of duration. They include the degree of sibling solidarity expressed in joint production, management and intergenerational transmission of resources of various kinds, as well as shared responsibility for children. They include modes of reckoning descent and inheritance and the functioning of descent groups - including patrilineages, matrilineages, descending kindreds. They include the division of labour of different kinds between the sexes, age groups, classes, castes. They include patterns of authority, sources of power over people and control of resources and thus of dependence and autonomy. Such factors need to be taken into account if studies are to realistically index costs or prices of childbearing or to document conjugal decision-making processes in contexts in which the roles of mothers-in-law or senior agnates and other senior kin are critical.

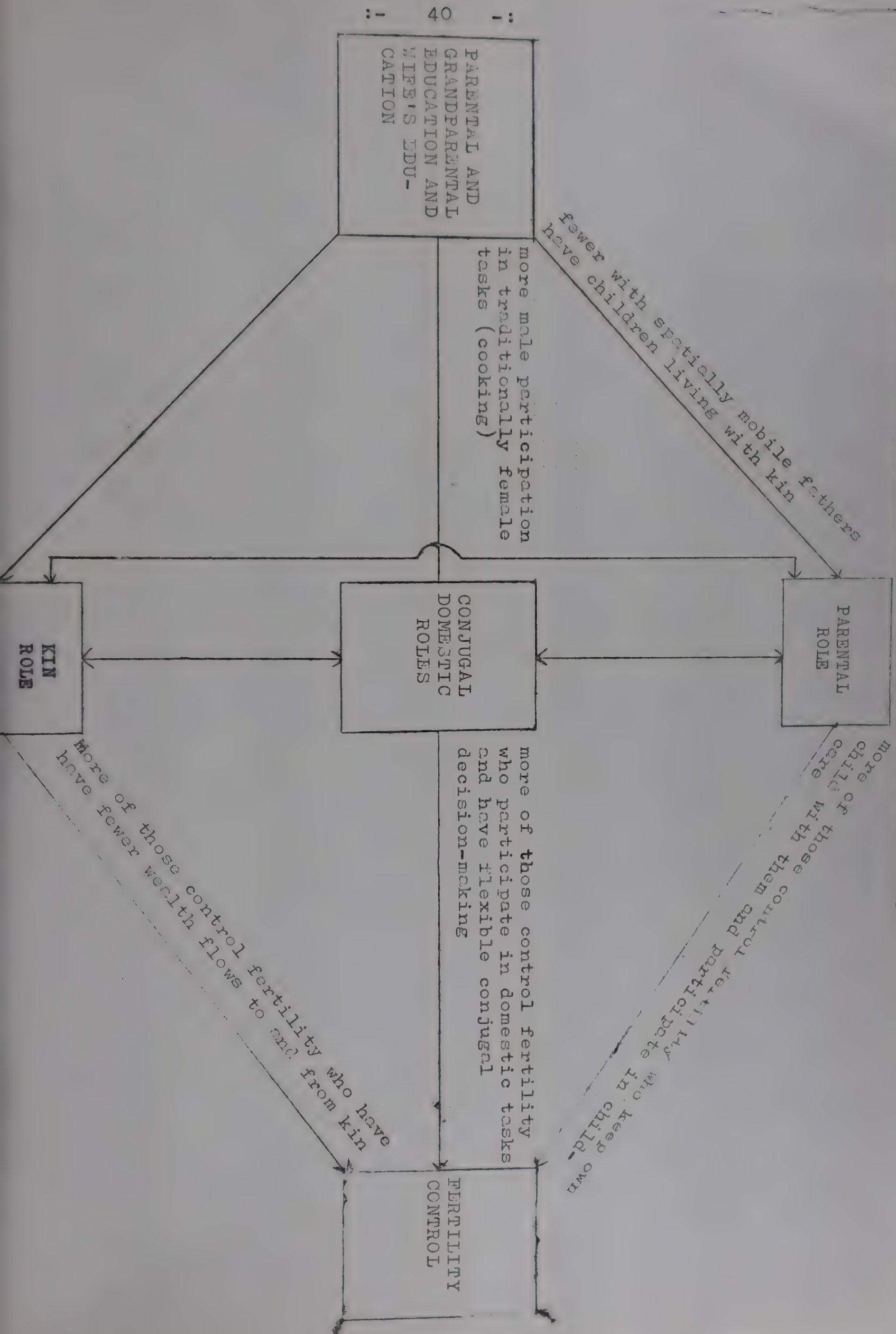
When researchers do not understand or are unaware of cultural and social phenomena in the context in which they are working, field research focusing on individuals, the domestic groups, neighbourhoods, communities, which sifts through a wide range of information is required. Such a preliminary immersion in the range of potentially relevant facts is needed before the right questions can be asked. Subsequently multi-method approaches are likely to lead to the richest and most meaningful data bases.

It has been argued that recent work which has seriously considered cultural differences has been productive of new understandings of fertility determinants, because it has taken into account the fact

that many aspects of familial, sex and generational roles have very different expectations and associated activity patterns: different from the models used in much earlier work, such as the stereotypes of the division of labour and resources in the household used by classical new home economists (Jones, 1977). Thus, it is once more argued that progress cannot be made in understanding differential and changing levels of fertility until more is known about flows and exchanges of resources within the domestic domain, between mates, parents and children, siblings and kin and importantly till more is known about the way these exchanges themselves change and are affected by alterations in non-domestic spheres such as labour markets, migration patterns and education. Here is a fertile field for research and we believe that it is one in which it will be beneficial for economists to join forces with anthropologists, psychologists, sociologists, demographers and others, if realistic and relevant research is to be conducted in diverse cultural settings which will be pertinent to policy requirements and welfare needs.

Thus the ultimate goal of this final chapter has been to call attention, like Jones (1977, p. 38), to the necessity of understanding how economic factors in the domestic domain are important in determining fertility "through the screen of culture and family structure". It has been argued that for such understanding to be facilitated new flexible models of role relationships and resources in the domestic domain need to be conceived and that to test these models small sets of different types of empirical field data both quantitative and qualitative need to be collected. Illustrations of the form and content of such materials from one country, Ghana have indicated their potential relevance. Ultimately such studies should help to provide the kinds of materials required to shed more light on continuing and changing patterns of fertility behaviour and expectations in contrasting subgroups and cultures (Miro and Potter, 1980) and without such understanding realistic and effective population policies will be difficult to devise or execute.

Figure II: Changing Familial Role Behaviours and Fertility Regulation



Footnotes

1. Readers unfamiliar with the findings and methods of the discipline of anthropology may consult a recent research guide by Pelto and Pelto (1978).
2. See, for example, the array of papers from several disciplines presented at the IUSSP Seminar on Determinants of Fertility Trends: Major Theories and New Directions for Research, held in Bad Homburg, 14-17 April 1980 or the contributions to the workshop on the Anthropology of Human Fertility, held on 20-21 February 1981 at the National Academy of Sciences, Washington, DC.
3. See, for instance, Leibenstein (1975); Easterlin (1978); Bagozzi and Van Loo (1978a and b); Bulatao et al. (1981); and attempts to include the effects of taste or preferences, social influence or reference groups and community level variables.
4. See, for instance, Jone (1977); Bagozzi and van Loo (1978a and b); Beaujot, Krotki and Krishnan (1978); Oppong (1976b, 1982).
5. Studies in this category would include those of Banks (1954) on Victorian England, and Caldwell (1968) on Ghanaian suburban dwellers, among whom aspirations for an expensive quality of child-care and training is leading to lowering of fertility values from their traditionally high level.
6. Such diminution of parental role delegation has been conceived in terms of "conjugal familism" (e.g. Ryder, 1959; Patersen, 1961); lack of supportive kin and community assistance (Goldberg, 1960), the disintegration of lineage systems and the emergence of strong nuclear families (e.g. Fortes, 1954); increased "closure" of the conjugal family (Oppong, 1981b).
7. See MacFarlane (1978a and b) on economic individualism and Stone (1977) on affective individualism. Both of these historical studies examine several centuries of evidence from English family life.
8. The literature on this subject is enormous, see Standing (1978), and Standing and Sheehan (1978).
9. For example, see DeVanzo and Lee (1978), Ho (1979).
10. See, for instance, studies by Scanzoni (1975, 1976a and b); Tobin (1976); Rainwater (1965). See also Howell (1979).
11. See, for example, the guide for focused biographies of women in relation to demographic issues including fertility (Oppong and Church, 1981).

12. Typical tools of research have been outlined in Chapters 5 and 6 of Pelto and Pelto (1978).

13. Note that here, as below, we use the "anthropological present tense" even though a number of changes have occurred in the region in the intervening period consequent upon compulsory schooling, cash-cropping, large-scale farming; the introduction of new machinery and modes of production, and the growth of a class of landless labourers.

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